Claims 1-4 (Cancelled)

5. (Presently Amended) An apparatus for correlating a spread-spectrum signal sample with a reference code, comprising:

spread spectrum signal storage means for storing the spread-spectrum signal sample at a present sampling instance and at a previous sampling instance;

subtraction means for calculating a difference between the present sampling instance and the previous sampling instance;

multiplication means for computing the multiplication result of the difference calculated by the subtraction means and an element of the reference code;

correlation lag storage means for storing a correlation lag obtained at the last previous sampling instance; and

addition means, coupled to the outputs of the multiplication means and the correlation lag storage means;

wherein the addition means generates a correlation lag for the present sampling instance based on the ~~previous value of the~~ correlation lag at the previous sampling instance.

Claims 6-8 (Cancelled)

9. (Presently Amended) The apparatus of claim 8 5, wherein the ~~stream of~~ spread-spectrum signal samples is generated from a received BPSK signal composed by means of periodic repetition of a PN sequence.

10. (Presently Amended) The apparatus of claim 8 5, wherein the ~~stream of~~ spread-spectrum signal samples is generated from a received CPSK signal composed by means of periodic repetition of a PN sequence.

11. (Presently Amended) The ~~aparatus~~ apparatus of claim 5, wherein the correlation lags at the present sampling instance are even-correlation lags.

12. (Original) The apparatus of claim 5, further including a negator configured to generate odd correlation lags.

13. (Presently Amended) An apparatus for correlating a plurality of streams of a spread-spectrum signal sample with a reference code, comprising:

spread spectrum signal storage means for storing the spread-spectrum signal sample at a present sampling instance and at a previous sampling instance for each stream;

subtraction means for calculating a difference between the present sampling instance and the previous sampling instance for each stream;

multiplication means computing the multiplication result of the difference calculated by the subtraction means and an element of the reference code for each stream, the element of the reference code for each stream being the same element;

correlation lag storage means for storing a correlation lag obtained at the last previous sampling instance for each stream; and

addition means, coupled to output of the multiplication means and the correlation lag storage means;

wherein the addition means generates a correlation lag for the present ~~sampling~~

instance based on the ~~previous value of the~~ correlation lag <u>at the previous sampling</u>

<u>instance</u>.

14. (Original) An apparatus of claim 13, wherein the plurality of streams of spread-spectrum signal samples are generated from a BPSK signal composed by means of periodic repetition of a PN sequence.

15. (Original) An apparatus of claim 13, wherein the plurality of streams of spread-spectrum signal samples are generated from a CPSK signal composed by means of periodic repetition of a PN sequence.

16. (Original) An apparatus of claim 13, wherein the plurality of streams of spread-spectrum signal samples are generated from a QPSK signal composed by means of periodic repetition of a PN sequence.

17. (Original) An apparatus of claim 13, wherein the plurality of streams of spread-spectrum signal samples are generated from a multicarrier BPSK signal each of subcarrier signals being composed by means of periodic repetition of a PN sequence.

18. (Original) An apparatus of claim 13, wherein the plurality of streams of spread-spectrum signal samples are generated from a multicarrier QPSK signal each of subcarrier signals being composed by means of periodic repetition of a PN sequence.

19. (Presently Amended) A method of producing a correlation lag for a spread spectrum signal sample, comprising the steps of:

storing spread-spectrum signal samples obtained at a current sampling instance and at a plurality of previous sampling instances in a shift register; and

computing the correlation lag for the current sampling instance based on: (i) a correlation lag for one of the plurality of a previous sampling instances; (ii) a reference code; (iii) the spread-spectrum signal sample at the current sampling instance; and (iv) the spread-spectrum signal sample at one of the plurality of a previous sampling instances.